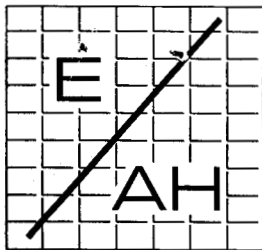


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CNC CHARLESTON
5090.3a

LETTER REVISING REQUEST FOR APPROVAL OF MONITORING WELL INSTALLATION
ZONE D, ZONE F AND ZONE G CNC CHARLESTON SC
8/26/1996
ENSAFE/ ALLEN AND HOSHALL



2906 - 08420

EnSafe / Allen & Hoshall

a joint venture for professional services

18

August 26, 1996

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Management
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Suite 326
Irving, TX 75038
Phone (214) 791-3222
Fax (214) 791-0405

Mr. Paul Bergstrand
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, SC 29201

**RE: Revised Request for Approval of Monitoring Well Installation
Zones D, F, and G Naval Base Charleston, Charleston, South Carolina**

Dear Mr. Bergstrand:

Per your conversation with Mr. Todd Haverkost of E/A&H on August 26, 1996, the request for approval letter has been revised. A minimum of 32 shallow monitoring wells will be installed using hollow stem auger methods to an approximate depth of 15 feet below ground surface. The five deep monitoring wells will be completed at the top of the Cooper Formation using rotosonic drilling methods. This depth varies across the zones from approximately 25 to 65 feet below ground surface. The sample locations are referenced in Sections 2 and 3 of the Final Zones D, F, and G Work Plan, June 13, 1996.

This submittal fulfills the requirements for notification to SCDHEC as stated in the *South Carolina Well Standards and Regulations Document R.61-71*. The drilling subcontractor is tentatively scheduled to initiate drilling activities on Tuesday, August 27, 1996.

If you have any questions, comments or need additional information, please do not hesitate to call me at (904) 479-4595 or Mr. Peter Bayley (803) 884-0029 or onsite at NAVBASE Charleston (803) 747-0336. We look forward to hearing from you on this matter.

Sincerely,
EnSafe/Allen & Hoshall

Diane M. Maddux

for By: Craig R. Smith
Task Order Manager

cc: Todd Haverkost, SCSafe
Tony Hunt, SOUTH DIV
Doyle Brittain, USEPA Region IV
CTO-2907, file

South Carolina
DHEC
 Department of Health and Environmental Control
 2600 Bull Street, Columbia, SC 29201

Commissioner: Douglas E. Bryant

Board: John H. Burriss, Chairman
 William M. Hull, Jr., MD, Vice Chairman
 Roger Leaks, Jr., Secretary

Richard E. Jabbour, DDS
 Cyndi C. Mosteller
 Brian K. Smith
 Rodney L. Grandy

Promoting Health, Protecting the Environment

30 August 1996

CERTIFIED MAIL

Commander Paul Rose
 Officer In Charge, Caretakers Site Office
 Naval Facilities Engineering Command, Southern Division
 Building NH-45
 Charleston Naval Base
 Charleston, SC 29408-2020

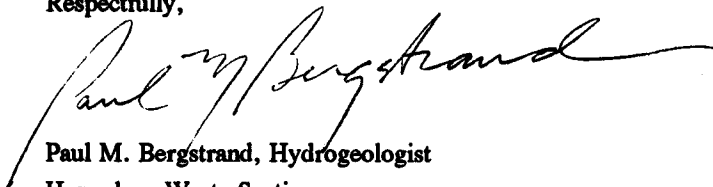
RE: Zone D,F & G Monitoring Well Request, Dated 26 August 1996 (Smith to Bergstrand)
 Naval Base Charleston
 Charleston County
 SC0-170-022-560

Dear Cdr Rose :

The above referenced request has been reviewed with respect to R.61-79.265 Subpart F of the South Carolina Hazardous Waste Management Regulations and R.61-71 of the South Carolina Well Standards and Regulations. This request is for the installation of 25 monitoring wells to assess potential contamination of the surficial and intermediate aquifer. The deepest monitoring wells are anticipated to be completed to approximately 65 feet.

Attached, please find a Monitoring Well Approval Form and a copy of the proposed well locations per Figures 2-2, 2-3, 2-4, 2-5, 2-9, 2-11, 2-15, 2-17, 2-18, 2-19, 2-21 of the 13 June 1996 Workplan. A copy of this monitor well approval form should be on site during drilling operations. Please be advised, this monitoring well approval should not be construed as concurrence with the June 1996 Zone D, F & G Workplan and the recommendations contained therein. Additional assessment may be required at any of these locations. Should there be any questions, please contact me at 803-896-4016.

Respectfully,



Paul M. Bergstrand, Hydrogeologist
 Hazardous Waste Section
 Division of Hydrogeology
 Bureau of Solid and Hazardous Waste

Enclosures; Maps, HW-96-0076

CC: Christine Sanford-Coker, Trident District EQC
 Johnny Tapia, Hazardous Waste Permitting Section
 Tony Hunt, Southern Division
 Todd Haverkost, EnSafe, 935 Houston Northcutt Blvd., Mt. Pleasant, SC 29464

Monitoring Well Installation Approval

Approval is hereby granted to: for

Various Locations, Zones D, F & G per Figures 2-2, 2-3, 2-4, 2-5, 2-9, 2-11, 2-15, 2-17, 2-18, 2-19, 2-21.
Charleston Naval Shipyard/Base
Charleston County
RCRA Permit # SC0-170-022-560

for the construction of monitoring wells designated in accordance with the construction plans and specifications submitted to the Department on 26 August 1996 (Smith to Bergstrand).

The wells will be constructed within the surficial and intermediate aquifers to the approximate depth of 15 and 65 feet respectively below the surface and screened for the purpose of monitoring aquifer conditions.

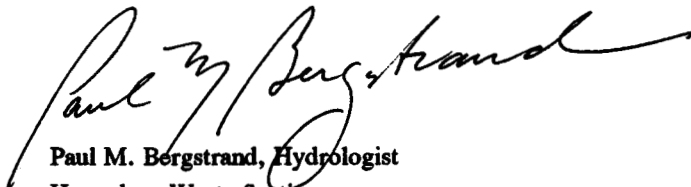
Conditions:

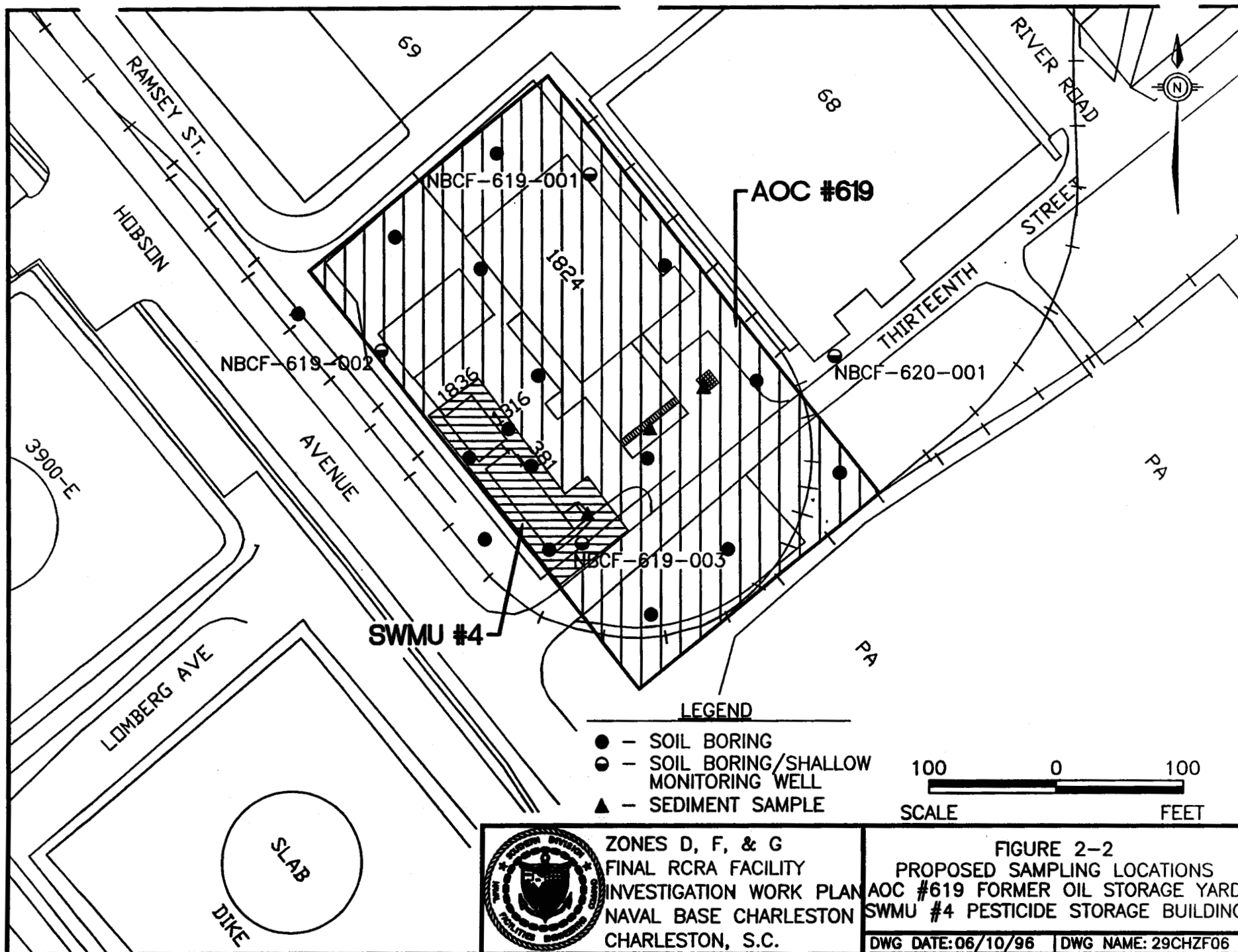
1. A driller certified to operate in the State of South Carolina must install the monitoring wells.
2. The driller's certification number, the latitude and longitude and the actual construction details for each well be submitted with the report of laboratory findings.
3. All monitoring wells must be developed until temperature, specific conductivity and turbidity measurements stabilize and the well produces clear, sediment-free water. Submit a record of these measurements with the well construction details.
4. All drill cuttings from the boreholes and purge water from well development must be contained. The containerized materials must be analyzed for disposal utilizing the same methods as the samples.
5. Contact Christine Sanford-Coker, Trident District EQC Hydrogeologist, during normal business hours at (803) 740-1590 at least 48 hours before installation of the wells.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Well Standards and Regulations, R.61-71.

Date of Issue: 30 August 1996

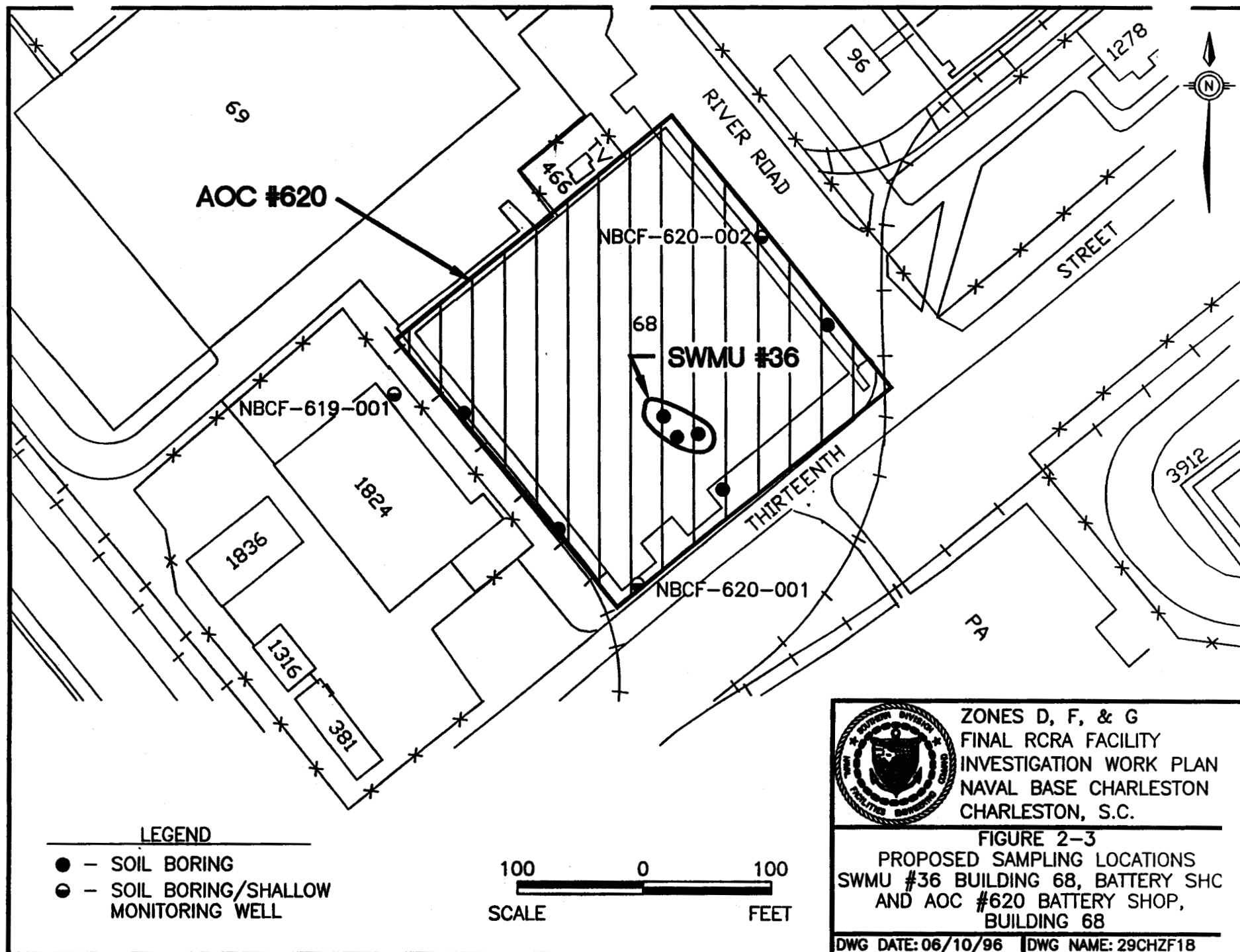
Approval Number: HW-96-0076

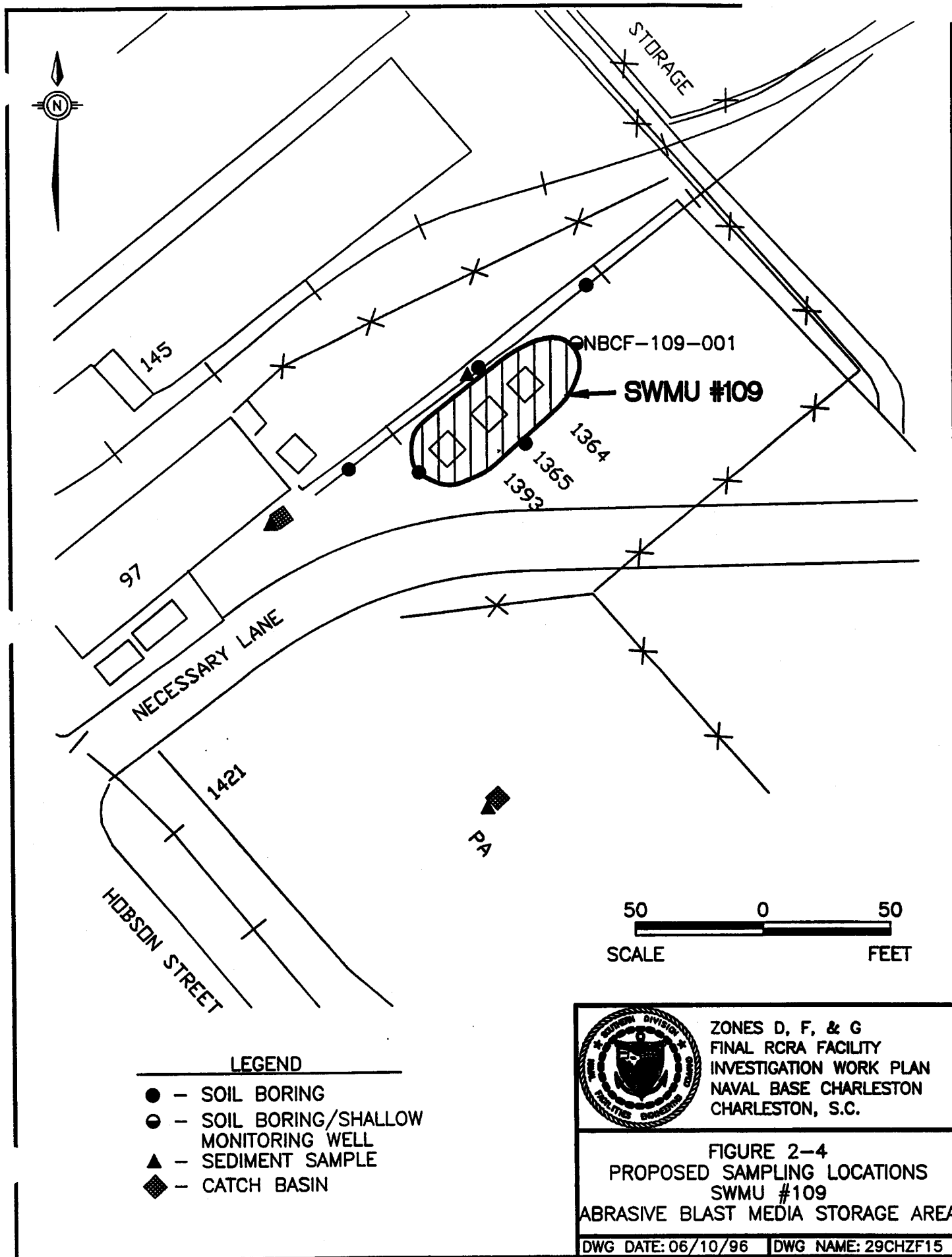

Paul M. Bergstrand, Hydrologist
Hazardous Waste Section
Division of Hydrogeology
Bureau of Solid and Hazardous Waste

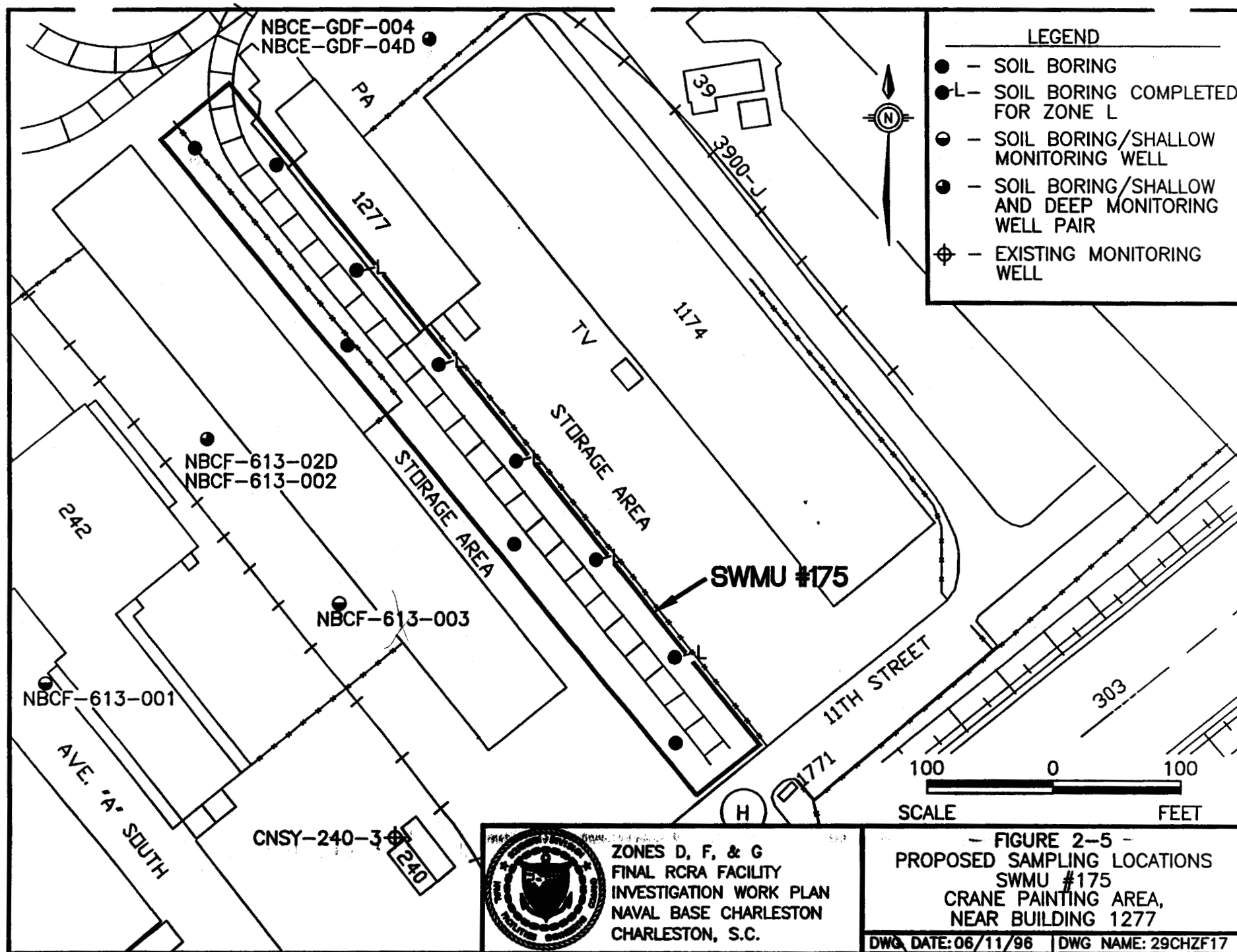


ZONES D, F, & G
FINAL RCRA FACILITY
INVESTIGATION WORK PLAN
NAVAL BASE CHARLESTON
CHARLESTON, S.C.

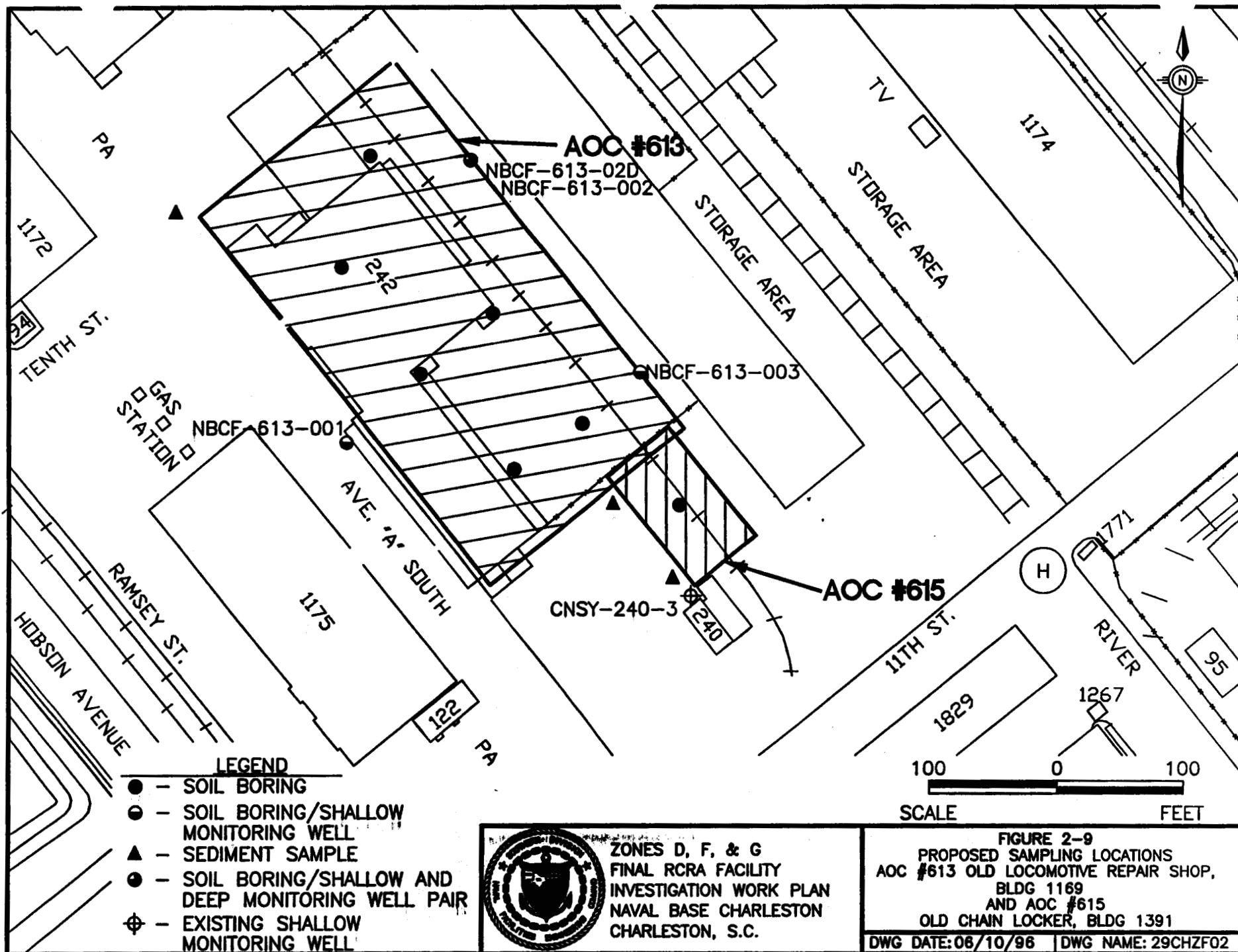
FIGURE 2-2
PROPOSED SAMPLING LOCATIONS
AOC #619 FORMER OIL STORAGE YARD
SWMU #4 PESTICIDE STORAGE BUILDING
DWG DATE: 06/10/96 DWG NAME: 29CHZF06



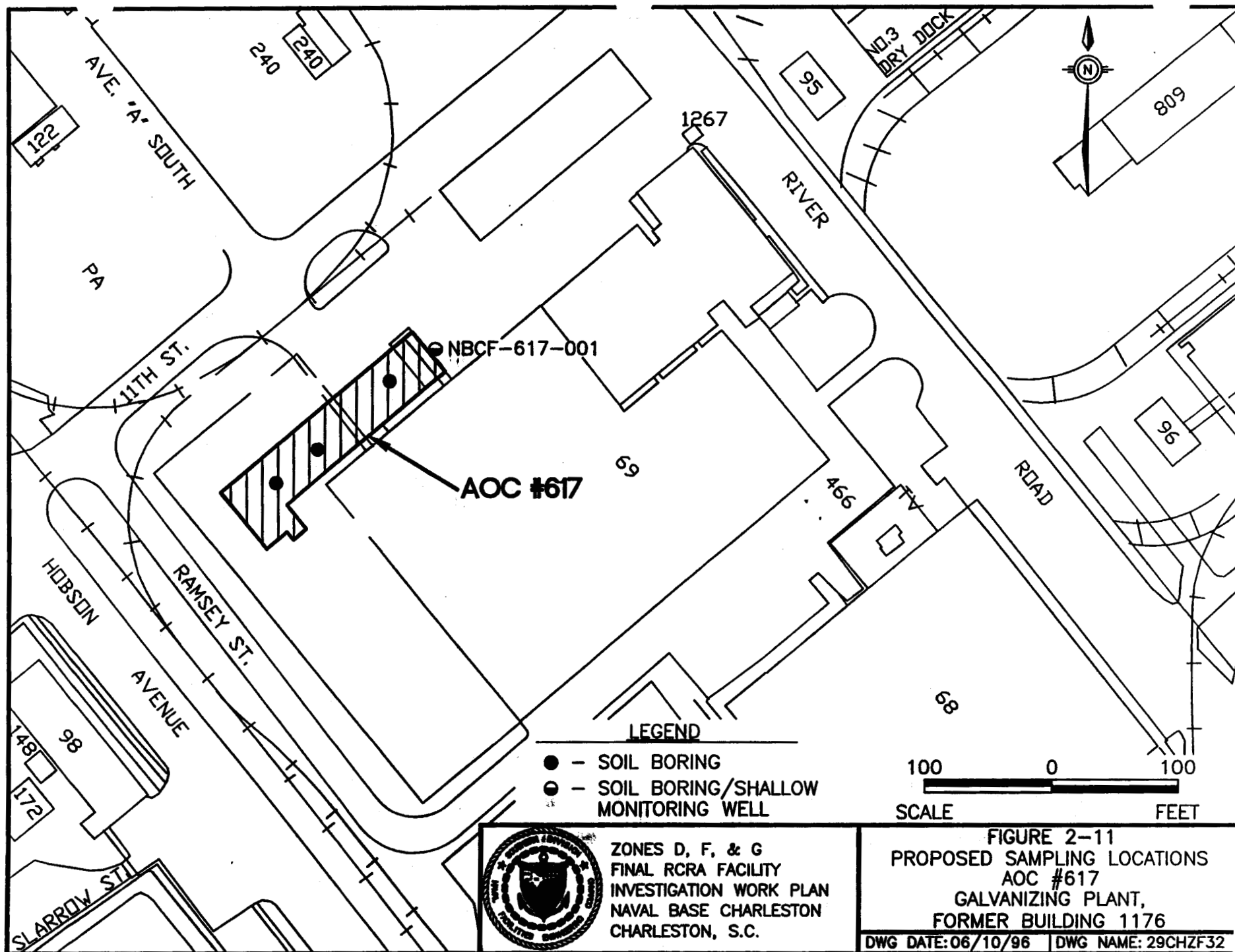




ZNES D, F, & G
FINAL RCRA FACILITY
INVESTIGATION WORK PLAN
NAVAL BASE CHARLESTON
CHARLESTON, S.C.

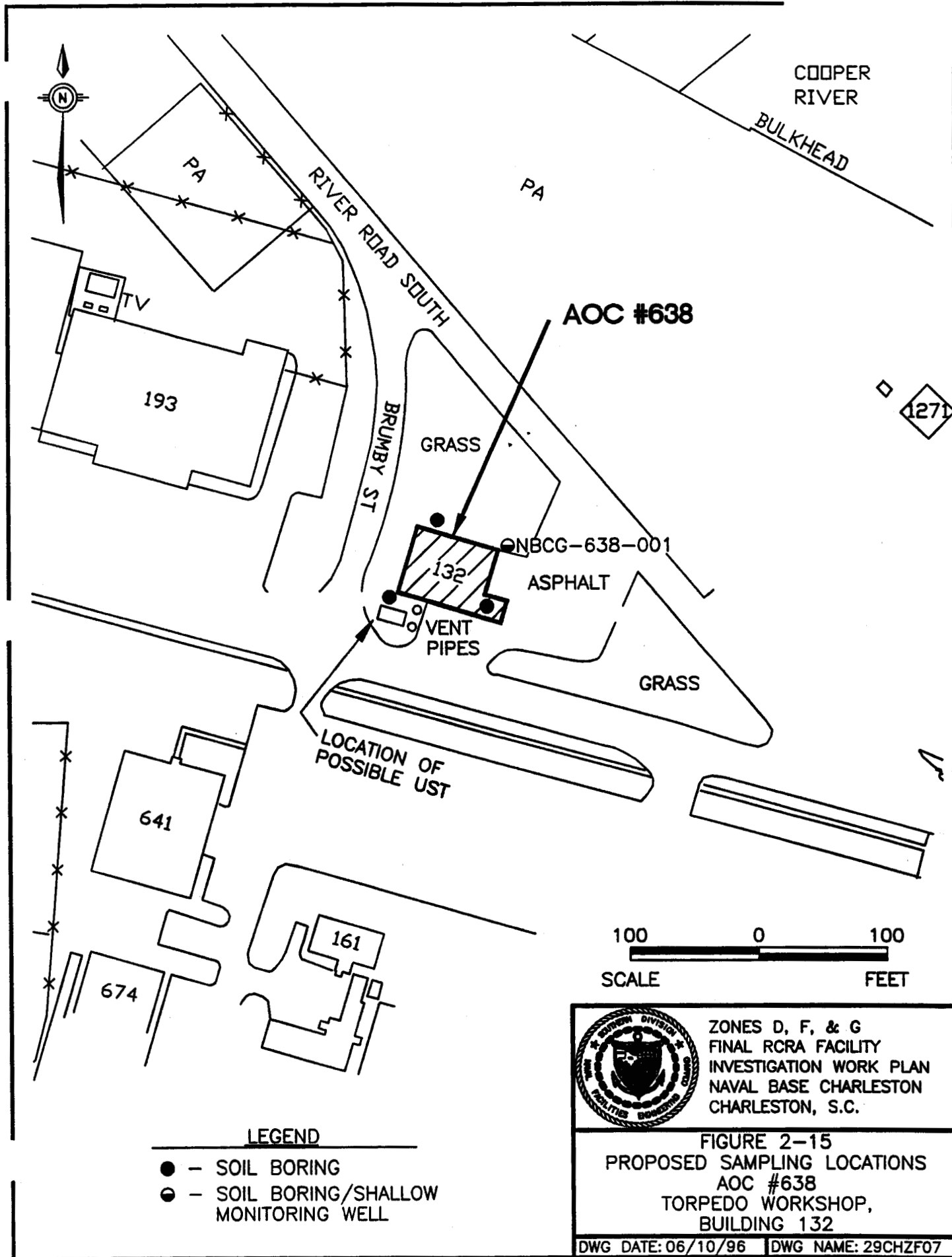


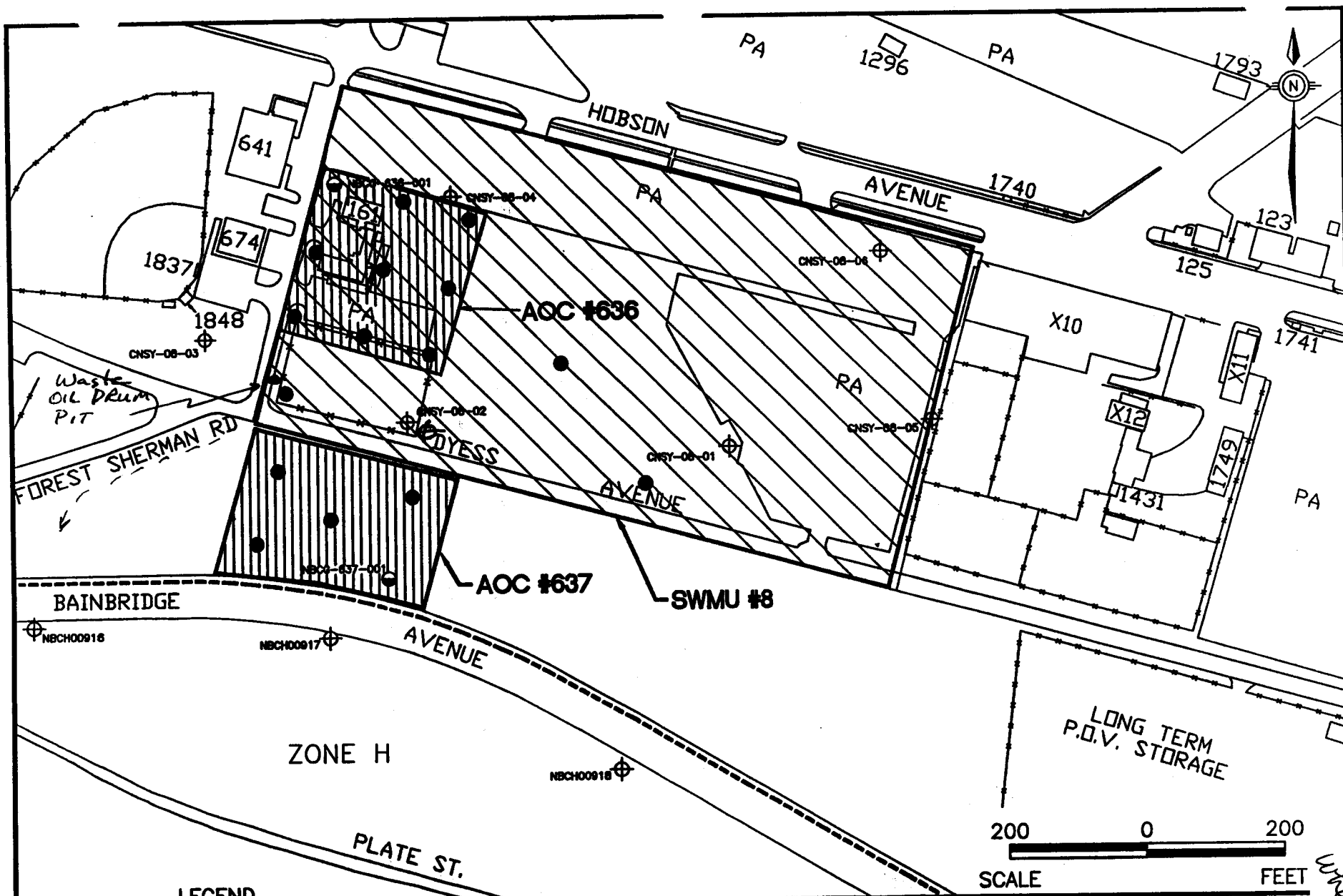
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ZONES D, F, & G
FINAL RCRA FACILITY
INVESTIGATION WORK PLAN
NAVAL BASE CHARLESTON
CHARLESTON, S.C.

14 Continuer





LEGEND

- - SOIL BORING
- - SOIL BORING/SALLOW MONITORING WELL
- ⊕ - EXISTING WELL
- ZONE BOUNDARY

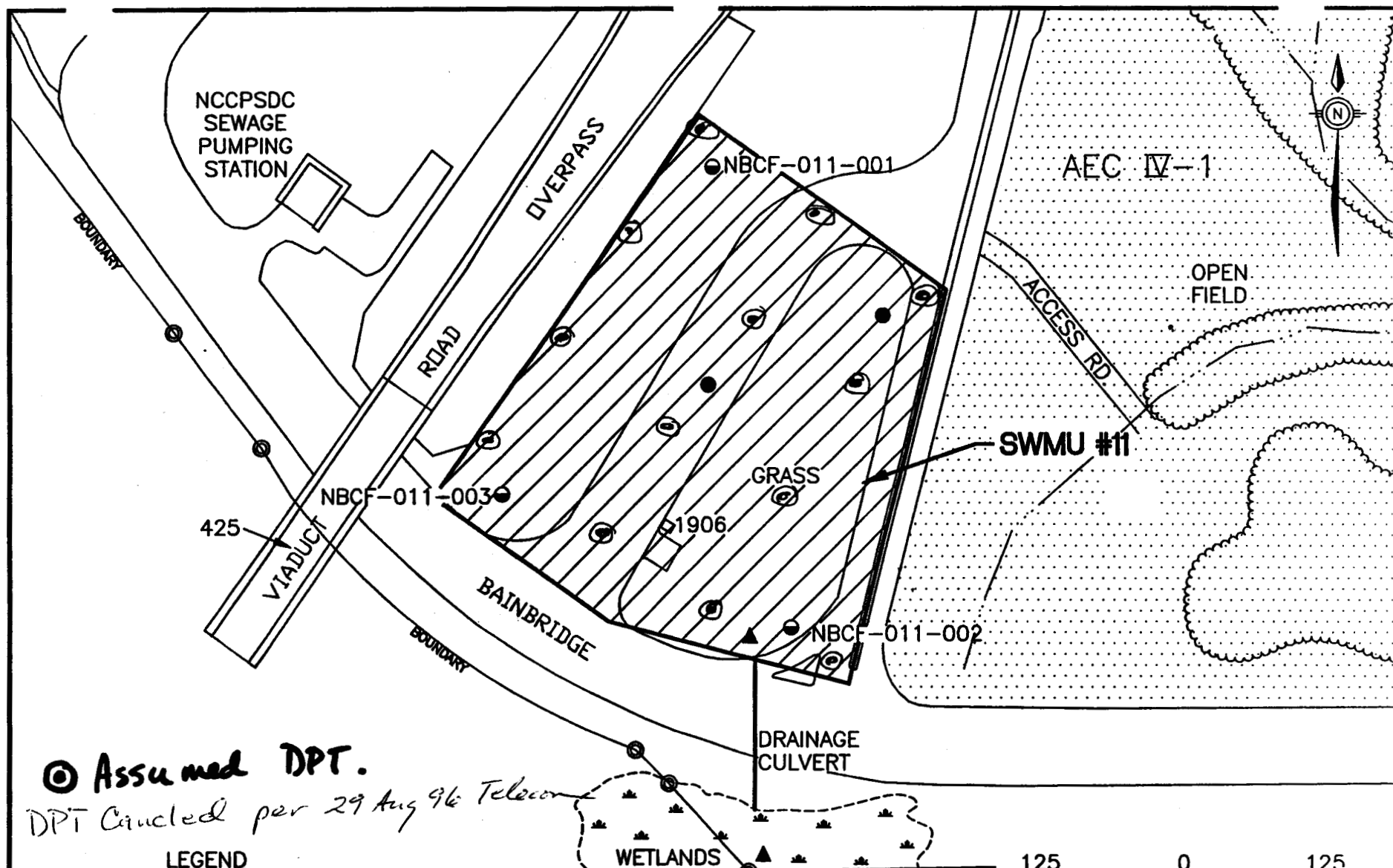


ZONES D, F, & G
FINAL RCRA FACILITY
INVESTIGATION WORK PLAN
NAVAL BASE CHARLESTON
CHARLESTON, S.C.

FIGURE 2-17
PROPOSED SAMPLING LOCATIONS
SWMU #8 OIL SLUDGE PIT
SWMU #637 DUMP AREA
AOC #636 TORPEDO MAGAZINE
BUILDING 161 AREA

DWG DATE: 06/10/96 | DWG NAME: 29CHZF

where is 9



© Assumed DPT.

DPT Cancelled per 29 Aug 96 Telecom

LEGEND

- - SOIL BORING
- ⊙ - SOIL BORING/SHALLOW MONITORING WELL
- ▲ - SEDIMENT SAMPLE
- ~~~~~ - TREE LINE
- - DITCH



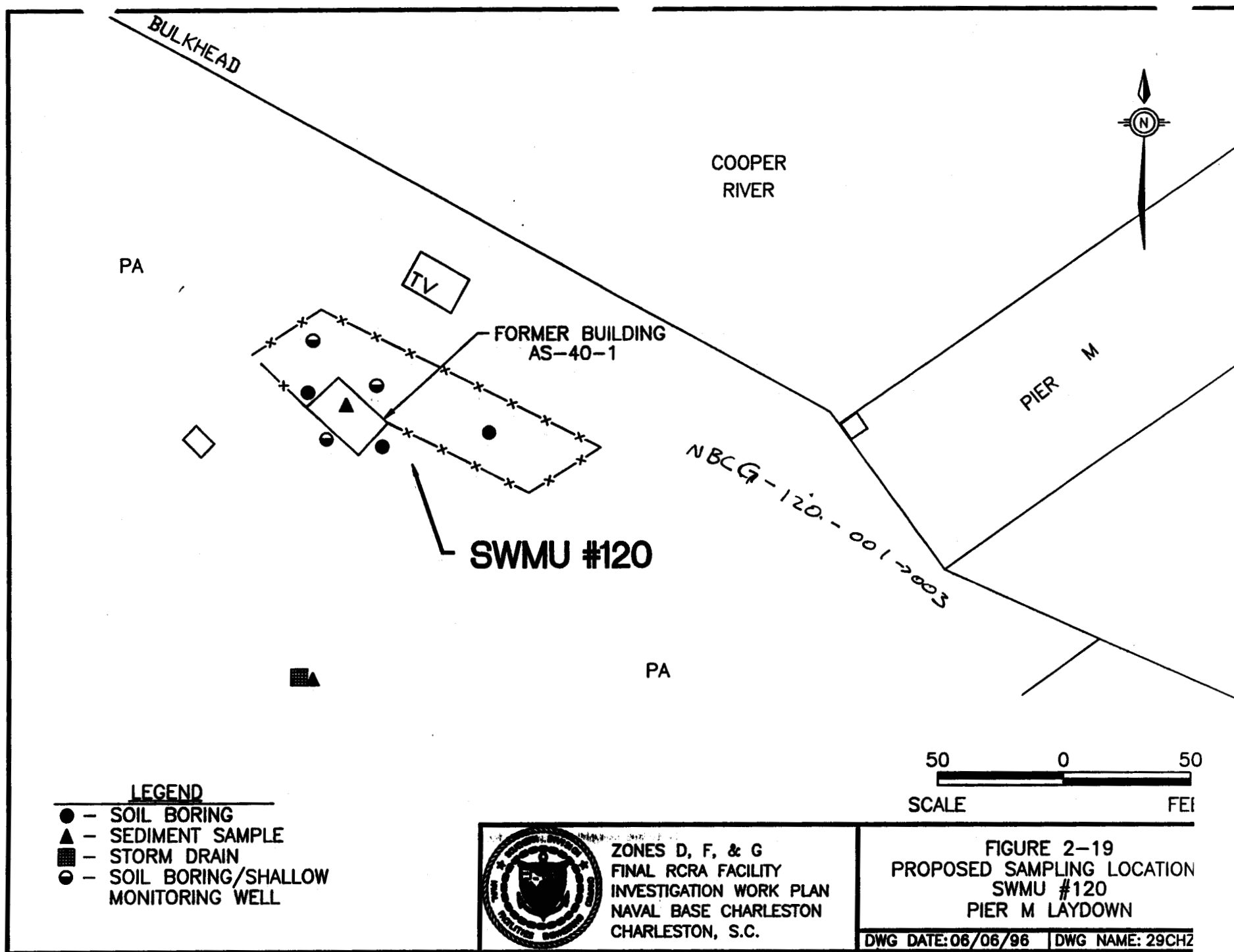
ZONES D, F, & G
FINAL RCRA FACILITY
INVESTIGATION WORK PLAN
NAVAL BASE CHARLESTON
CHARLESTON, S.C.

125 0 125
SCALE FEET

FIGURE 2-18
PROPOSED SAMPLING LOCATION
SWMU #11
CAUSTIC POND

DWG DATE: 06/10/96 DWG NAME: 29CH

DP
③
mu



3

